

Effectiveness of Intravenous Acetaminophen and Ondansetron in Prevention of Post Appendectomy Shivering In General Anesthesia Method

Abstract

Background and Objective: Postoperative shivering is characterized by involuntary movements of one or more muscle groups in the early stages of recovery after a general anesthesia. This complication can lead to many problems for patients. In this study, we evaluated the efficacy of intravenous Acetaminophen and Ondansetron in preventing of shivering in patients undergoing general anesthesia with appendicitis diagnosis and compared the efficacy of each.

Methods: This study is a triple blind clinical trial. It was conducted on 150 patients with ASA class I and II undergoing appendectomy with general anesthesia in Fatemi Hospital affiliated by ARUMS during 2017-18. These patients were randomly divided into three groups of Acetaminophen and Ondansetron and placebo. Patients were unaware of the type of drug received. Half an hour before surgery, drugs were injected in groups, then the endotracheal tube was removed and the patients were transferred to the recovery room and shivering was measured up to half an hour after the operation.

Results: Survey of demographic data showed that there was no significant difference between sexes, mean age, weight average and ASA distribution in study groups in three groups ($p > 0.05$). Incidence and severity of shivering in recovery room in Ondansetron group were significantly lower than Acetaminophen group and placebo group ($p < 0.05$). Evaluation of the incidence of nausea and vomiting in the recovery room in the group receiving ondansetron was significantly lower than the other two groups ($p < 0.05$). VAS-based pain assessment was indicated at recovery room, where pain score in ondansetron group was significantly higher than other groups and acetaminophen had the greatest effect on pain relief ($p < 0.05$).

Conclusion: This study showed that ondansetron is a suitable and effective option in the prevention of postoperative shivering. According to the results, decreasing nausea and vomiting in the ondansetron group could also be another advantage of ondansetron.

Keywords: Ondansetron, Acetaminophen, Post Appendectomy Shivering